

## ABSTRACT OF THE DISCLOSURE

A method and apparatus for determining vulnerable plaque in a cardiovascular lumen is disclosed. In one embodiment, a guide member comprising a temperature sensor and a distance sensor are inserted into the cardiovascular lumen. The temperature of the cardiovascular wall is measured with the temperature sensor, and the distance from the temperature sensor to the cardiovascular wall is determined. The cardiovascular wall temperature is adjusted based on the distance determination, and the vulnerable plaque is determined based on the adjusted wall temperature measurement.